



## Swedish/American Immigration and DNA

Savannah Larson  
Savannah.Larson@FamilySearch.org

### OBJECTIVE

You will:

- Understand the barriers of DNA when it comes to immigrant research
- Know the limitations and benefits of different testing companies
- See different methodologies in action to solve a research case study

### NOTE ON CULTURE AND LANGUAGE DIFFERENCES

When working with matches and relatives from different countries – keep in mind that their culture and language can affect how they communicate with you, the DNA tests they choose to take, and their willingness to share information. Be respectful of everyone you choose to contact and be aware that they may not always respond in the way you might expect.

### FHL RESOURCES FOR OVERCOMING THE LANGUAGE BARRIER

#### ***Family History Library-Online Consultations***

<https://www.familysearch.org/en/family-history-library/family-history-library-research-consultations>

Get one on one research suggestions from a specialist at the library—all from the comfort of your own home.

#### ***Family History Library-Record Look-up Services***

<https://www.familysearch.org/en/family-history-library/family-history-library-records-look-up-service>

While this service is not often needed for the Nordic countries—record lookups offer you a chance to access records that may otherwise be difficult to access.

#### ***FamilySearch Learning Center and RootsTech.org***

<https://www.familysearch.org/en/help/helpcenter/learning-center>

<https://www.familysearch.org/rootstech/search>

Watch classes and content to help you better understand how to research in the Nordic countries

#### ***FamilySearch Communities***

<https://community.familysearch.org/en/group/137-nordic-countries-genealogy-research>

Ask a group of experts and volunteers for translation and research help

# DNA RESEARCH PROCESS

## 1. Exhaustive research in American Sources

- a. Research the life of the immigrant for every piece of information you can find.
  - i. Census, vital records, naturalization, passport application, travel, land, probate, etc. for the immigrant ancestor AND his spouse and children.

### Compare and Correlate Data

- b. Keep a research log so you can compare data from each piece of evidence you find. Look for the following:
  - i. Exact birth date
  - ii. Birthplace (country, county, city, town, farm)
  - iii. Names of parents
  - iv. Immigration and naturalization dates (even census reported)

## 2. Determine Your Testing Options Based on your Relationships

- a. Map out your tree and look for the following:
  - i. Is the immigrant a direct male ancestor? Or do I know a direct male descendant?
  - ii. Is the immigrant a direct female ancestor? Or do I know a direct female descendant?
  - iii. Is the immigrant an X-DNA ancestor?
- b. From the information gathered above—are there any tests you would like to pursue besides autosomal DNA testing?

## 3. Group Autosomal DNA Matches to Identify a Match Group

The goal of grouping is to identify the group of matches who are all related to you and the common ancestor you hope to identify. There are many ways to accomplish this.

- a. Leeds Method (allows you to compare the matches from all different testing sites in one place)
- b. MyHeritage or GedMatch Auto-Cluster Tools
- c. Genetic Affairs Auto Cluster (23andMe and FTDNA) or AutoFast Cluster (Ancestry)

## 4. Build Quick and Dirty Trees to Identify Relationship

- a. Start with people who have trees, find the match's relationships to each other and to you when possible
- b. Use DNA Painter's WATO tool to identify possible relationships and determine the likelihood of different relationship types

## 5. Continue with In-depth research to confirm relationships

- a. Document each generation and prove the connections with in-depth research.

# **AUTOSOMAL TESTING COMPANY COMPARISON**

## **Ancestry.com**

- Over 20 million users in database
- Started shipping to Denmark, Finland, Norway, and Sweden in 2016
- High shipping costs to Europe
- Sold data to third parties in the past with insufficient communications to users
- Still shares data with a specific list of companies and research partners if you have given your Informed Consent.
- Does not voluntarily release data to law enforcement unless request is backed by a court order, subpoena, or search warrant.

## **23andMe**

- Over 9 million users in database
- Offers Heritage and DNA matches, as well as a Health Report add on
  - Health reports are offered for Denmark, Finland, and Sweden
- High shipping costs to Europe
- Sold data to third parties in the past with insufficient communication to users
- Still shares data with service partners and research collaborators with your consent
- Does not voluntarily release data to law enforcement unless request is backed by a court order, subpoena, or search warrant

## **MyHeritage**

- About 5.7 million users in database
- Accepts uploads from Ancestry and 23andMe
- Started offering tests in 2016.
- Offers more languages than any other DNA service
- Based in Israel with a distribution center in the Netherlands – Offering lower shipping costs in Europe
- Only company that has never sold, and promised they will never sell data to a third-party
- Does not voluntarily release data to law enforcement unless request is backed by a court order, subpoena, or search warrant.
- Quote from their website, “It is the ideal DNA testing service for people seeking to find their relatives in Europe, and for people in the USA and the rest of the world whose ancestors originated from Europe.”

## **FamilyTreeDNA**

- Over 2 million users in database
- Accepts data uploads from Ancestry, 23andMe and MyHeritage
- Age restriction imposed. Children under 13 cannot test, and children 13-17 must have parental consent for testing
- Allows law enforcement to create limited accounts in the case of homicide, sexual assault, abduction or identifying human remains. Users can opt-in or opt-out of visibility to law enforcement accounts
- Data shared with specific research projects with the consent of the user

## X-DNA TESTING

X-DNA has a unique inheritance pattern and could also narrow down your results.

- **FamilyTreeDNA** and **23andMe** both report on X-DNA
- You can also get X-DNA matches by uploading your data to **GedMatch**.

### Map out where you could inherit X-DNA using an inheritance chart

You can find inheritance charts, both for male testers and female testers [HERE](#) or by copying and pasting the link below

<http://www.genealogyjunkie.net/x-dna-inheritance-charts.html>

If your immigrant ancestor falls into one of the inheritance regions, then X-DNA in concert with atDNA could help you—by accelerating your ability to identify how you may be related to relevant matches.

## YDNA AND MTDNA TESTING

When are YDNA or mtDNA testing helpful for Immigrant research?

- You group out your matches and have no matches for the ancestor's line on any of the testing company sites
- You have a hypothesis for the father of your immigrant—but can't prove it with current available records
- Your ancestor is either a direct male ancestor or a direct female ancestor OR you can find a relative who is a direct male or direct female descendant of the immigrant who is willing to test for you

### YDNA and Immigrant Research

1. Understand the surnaming patterns for the country you're researching in – surname projects may not be useful for you
2. Serendipitous matches are rare – work from a hypothesis and target test people who could help solve the problem
3. Do research to identify target testers or to identify the ancestors of any opportune matches
4. Once you've got a good case for connection to a common ancestor, fully document and source your research to be sure of the generational link

Number of Markers	yDNA and Genetic Distance								
	0	1	2	3	4	5	6	7	8
111									
67									
37									
25									
12									

The connection will likely be made in with a genetic distance of 2 or less on a normal 111-test.

<https://learn.familytreedna.com/y-dna-testing/y-str/two-men-share-surname-genetic-distance-111-y-chromosome-str-markers-interpreted/>

### mtDNA and Immigrant Research

- If you share mtDNA it means you have a common maternal ancestor, but it can't really tell you how recent that relation is. It could be 3 generations, or 30
- Requires more targeted testing – but could be worth it if your immigrant was on a maternal line and you have a hypothesis person in the country of origin